MEMORANDUM

To: Sheila Abraham
Ohio EPA

Project No.: 933-6154
December 7, 2004

cc: Mary Logan, USEPA
Rainer Domalski, ROC

From: Steve Finn

RE: **STATE ROUTE 165 DRAINAGE DITCHES**
MIDDLE FORK LITTLE BEAVER CREEK, MAHONING COUNTY, OHIO

Following our joint site visit and meetings on November 3 and 4, 2004, this memorandum sets forth a summary of the approach agreed at the meeting to address questions raised by the Ohio Department of Transport (ODOT).

Background
From time to time it is necessary for ODOT to remove accumulated material in drainage ditches alongside State Route 165 (SR65) in the vicinity of its crossing of the Middle Fork of Little Beaver Creek near New Albany, Mahoning County, Ohio. Recently, excavated material has been piled adjacent to the drainage ditches pending a decision on disposal. ODOT has requested guidance on required testing, and on general health and safety issues regarding contact with sediment and surface water in the area.

Proposed Approach
On behalf of ROC, Golder Associates (Golder) summarized data on MFLBC surface water, sediment, and floodplain soil in the vicinity of the SR 165 crossing collected as part of the Nease Site Remedial Investigation (RI) that is being conducted with oversight from USEPA and Ohio EPA:

- Mirex and photomirex are not detected in the surface water of MFLBC;
- A sediment sample collected in the creek at the SR165 crossing (SD 91-18) contained mirex at 58 ppb and was non-detect for photomirex; and,
- Eleven floodplain soil samples collected from transects across the floodplain in the area yielded 5 non-detects for mirex and 6 detects ranging from 10 to 315 ppb; the average mirex concentration was 50 ppb. There was only one detect for photomirex at a concentration of 3 ppb;

Based upon these data, there is not expected to be any significant human health risk associated with incidental contact with the MFLBC, or materials in the drainage ditches alongside SR165. ODOT's current recommendation to thoroughly wash down equipment and personnel that may contact the sediment is nonetheless a prudent precaution.

The attached map shows the SR 165 crossing and the extent of the floodway as defined by the Federal Emergency Management Agency (FEMA). Material in drainage ditches within the floodplain could potentially contain low levels of mirex[1]. The presence of mirex would not make the material a hazardous waste for disposal purposes (either by listing or characteristic) but it was

[1] Low levels of mirex are present in MFLBC sediment, as noted above, but ODOT believes that much of the material that accumulates in the ditches derives from run-off from surrounding areas above the floodplain, which would not be expected to contain mirex.

agreed that, on this occasion, testing to establish mirex and photomirex concentrations would likely assist the Health Department and landfill disposal facility in approving final disposition of the material. The following sampling and analytical program is recommended:

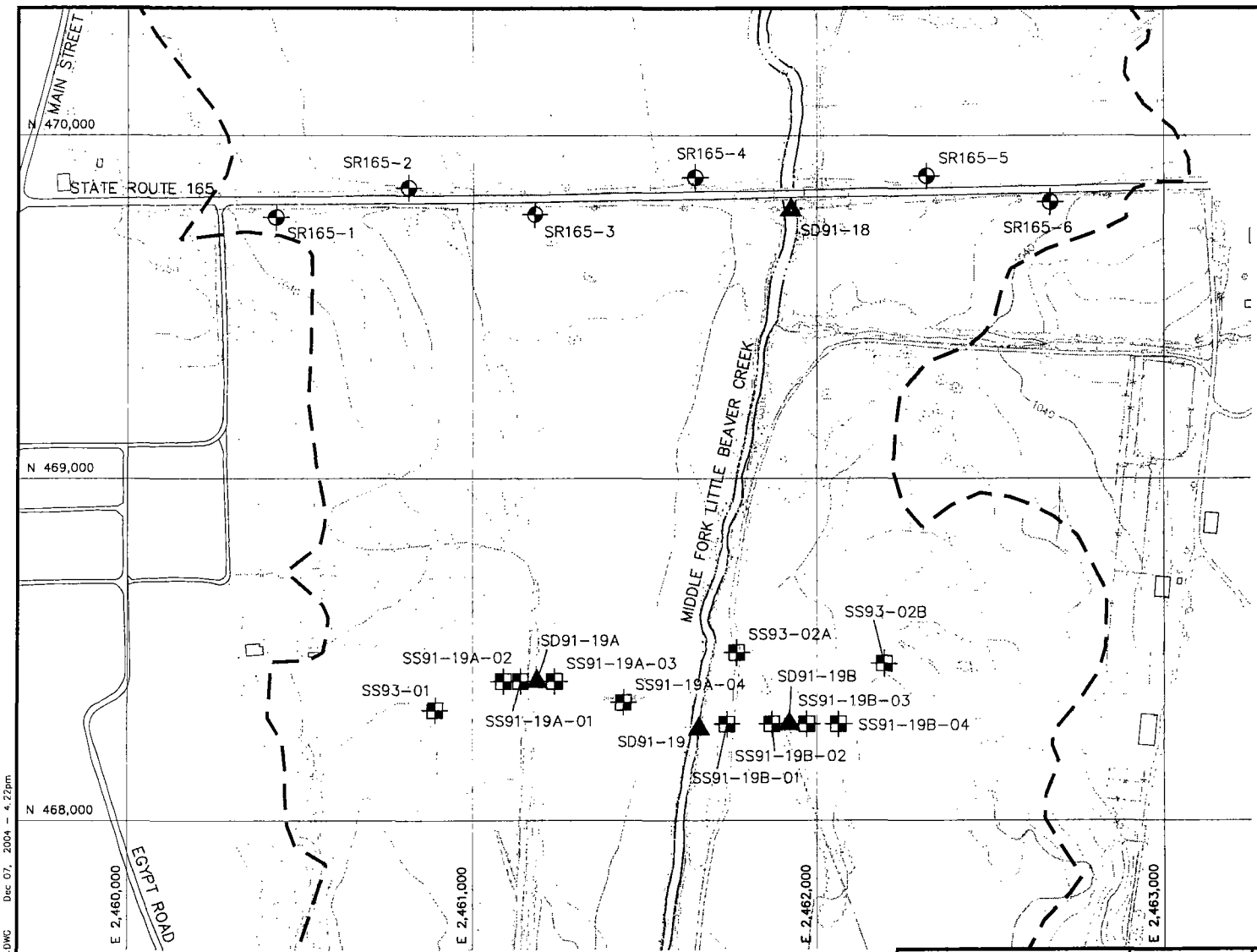
- Collect six (6) composite samples of drainage ditch soil at the locations indicated on the attached map;
- Where ditch soils have been recently excavated, the stockpiled soil will be sampled (3 samples). Each sample will be a vertical composite to represent the full thickness of removed soil;
- In areas not subject to recent excavation, vertical composites representing a 1-foot depth below the current ditch invert will be collected (3 samples);
- Composite samples will be thoroughly homogenized in the field by mixing in an environmentally clean container, prior to filling sample jars. A field duplicate and rinsate blank will be collected for quality assurance purposes;
- Sampling methods and QA/QC will follow the procedures previously approved by USEPA and Ohio EPA in connection with the RI; and,
- Samples will be shipped under formal chain-of-custody to Exygen Laboratories, for analysis of mirex and photomirex by the methods approved for the RI.

On this occasion, RÜTGERS Organics Corporation (ROC) will arrange to undertake the sampling and analytical work. Following data validation, ROC will provide tabulated data to Ohio EPA, ODOT and USEPA. Based upon the results, ROC will also make a recommendation regarding the need for any future sampling in connection with ODOT's routine drainage ditch maintenance activities.

We trust that this memorandum accurately reflects the results of our meeting, but if you have any questions, please do not hesitate to contact Rainer Domalski of ROC in the first instance.

Encl.

G:\PROJECTS\933-6154\OU-3 FS 2004\ODOT SR165 MEMORANDUM.doc



LEGEND

- FLOODWAY BOUNDARY (SEE REFERENCE 2)
- PREVIOUS SEDIMENT SAMPLE
- PREVIOUS FLOODPLAIN SOIL SAMPLE
- PROPOSED COMPOSITE DRAINAGE DITCH SAMPLE

NOTES

1.) COORDINATE SYSTEM IS OHIO STATE PLANE (NAD27).

REFERENCES

1.) BASE MAP FROM DIGITAL CAD FILE SALEMX3.dwg PROVIDED BY ENVIRON.

2.) FLOODWAY BOUNDARY TAKEN FROM NATIONAL FLOOD INSURANCE PROGRAM MAP, MAHONING COUNTY, OHIO, PANEL 100; FEBRUARY 1979.

300 0 300
SCALE FEET

Golder Associates
Philadelphia USA

SCALE	AS SHOWN
DATE	12/07/04
DESIGN	PSF
CADD	AM
CHECK	
REVIEW	
FILE No.	9336154D001
PROJECT No.	933-6154 REV. 0

TITLE

STATE ROUTE 165 DRAINAGE DITCH SAMPLING LOCATIONS

RÜTGERS ORGANICS CORPORATION

FIGURE 1

Drawing file: 9336154D001.DWG Dec 07, 2004 - 4:22pm